

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claims 1-8 are amended.

Listing of Claims:

1. (Currently Amended) A method for the precise dynamic digital control of especially piezoelectric actuators for micropositioning systems, comprising a PID regulator, whereby in order to minimise position order deviations, ~~the~~ future system behaviour is estimated and current correction signals are obtained for the purpose of a feedforward correction,

~~characterised in that comprising:~~

for the reduction of latency times in the feedforward loop of ~~the~~ a sampling system, ~~the~~ a signal of ~~the~~ a command is applied via a switchable bypass to a first digital/analog converter of highest resolution, with ~~this~~ ~~the~~ first digital/analog converter being operated at the sampling rate of the sampling system, ~~the~~ a PID feedforward loop further leads to a second fast digital/analog converter which is controlled independent of the sampling system, and ~~the~~ output signals of the first and second converter, which represent control voltages, are supplied in an added-up form to ~~the~~ a device to be controlled, in particular, to a piezoelectric actuator which together with a position sensor forms ~~the~~ a controlled system.

2. (Currently Amended) The method in accordance with Claim 1, ~~characterised in that~~ wherein a weighting and/or filtering of the signals of ~~the~~ a command variable, which are supplied to the first digital/analog converter is carried out.

3. (Currently Amended) The method in accordance with Claim 1, ~~characterised in that~~ wherein a same command variable is applied to both the first fast digital/analog converter of the controlled system and the second high-resolution digital/analog converter of the controlled system.

4. (Currently Amended) The method in accordance with ~~one of the previous claims, characterised by claim 1, wherein~~ a linearisation of the controlled system for the purpose of avoiding systematic errors in the signal paths.

5. (Currently Amended) The method in accordance with ~~one of the previous claims, characterised by claim 1, wherein~~ a specific predistorion of the control voltages and/or the arrangement of band elimination filters ~~for the purpose of reducing~~ reduces system resonances.

6. (Currently Amended) The method in accordance with ~~one of the previous claims, characterised in that claim 1, wherein~~ the piezoelectric actuator is primarily operated in a controlled manner via ~~the~~ a command variable, the feedforward loop, and the first fast digital/analog converter, while secondarily the controlled system with position sensor is operated in a subordinate manner in order to avoid static errors.

7. (Currently Amended) The method in accordance with ~~one of the previous claims, characterised in that claim 1, wherein~~ changes of ~~the~~ a command variable may be provided both to the first fast digital/analog converter, the second high-precision converter, or to both converters via switch means and/or control commands.

8. (Currently Amended) The method in accordance with ~~one of the previous claims, characterised in that claim 1, wherein~~ various command variables may be fetched selectively via ~~a further~~ switch means.